

Applicant : Achim Kraiss
Serial No. : 10/757,651
Filed : January 14, 2004
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Attorney's Docket No.: 13906-165001 / 2003P00822 US

Amendments to the Drawings:

The attached replacement sheets of drawings includes changes to FIG. 3 and replace the original sheets including FIG. 3

FIG. 3 has been amended to include the label "Prior Art."

Attachments following last page of this Amendment:

Replacement Sheets (3 pages)

REMARKS

A non-final office action that was mailed January 10, 2008, rejected pending claims 1, 3, 5-7, 11, 12, 14, and 20-31 and requested that Figure 3 be labeled as "Prior Art." Applicant has amended claims 1, 3, 7, 11, 14, 20-22, 24, 25, 27, 29-30, and Figure 3. Claims 1, 3, 5-7, 11, 12, 14, and 20-31 remain pending. Applicant requests reconsideration in view of the amendments above and the following remarks.

INTERVIEW SUMMARY

Applicant thanks Examiner Silver for the courtesies extended during a telephonic interview on March 17, 2008, in which Linzy McCartney participated on behalf of the Applicant. During the interview, the objection to the drawings was discussed, as well as the outstanding 101, 102, and 112 rejections. The Examiner explained his interpretation of the prior art and agreed that amending the claims to recite "using the stored state information" would obviate the 102 rejections. No agreement was reached regarding the 101 and 112 rejections or the objection to the drawings, but the Examiner agreed that the Applicant's positions would be duly considered in a response. Applicant again thanks Examiner Silver for taking the time to discuss this application.

CLAIM AMENDMENTS 1,3, 7, 11, 14, 20-22, 24, 25, 27, 29, 30:

Applicant has amended independent claims 1, 14, 21, 22, and 27 to recite "application system comprising one or more software applications that run in a computing environment," sending and receiving "electronic communication[s]," "electronically storing state information" and "stored state information." Claim 14 has been further amended to recite "memory within which is stored an electronic representation of a decision tree" and "a prediction engine comprising a processor and executable instructions stored in memory." In addition, claim 14 was also amended to remove an errant period. Support for these amendments can be found in paragraphs 11-13 and 31-34, as well as FIGs. 1 and 3. Applicant has also amended dependent

claims 3, 7, 11, 24, 25, 29, and 30 to address antecedent basis issues. Support for these amendments can also be found in paragraphs 11-13 and 31-34, as well as FIGs. 1 and 3.

CLAIM OBJECTIONS

Claim 14 stands objected to for failing to comply with USPTO guidelines for claim formation. Specifically, claim 14 contains a period before the end of the claim, in violation of MPEP 608.01(k). Applicant has amended claim 14 to remove the previously mentioned period. Thus, claim 14, as amended, complies with MPEP 608.01(k) and the Applicant respectfully requests that the Examiner withdraw the objection.

DRAWING OBJECTION

The Examiner objected to FIG. 3 as showing only that which is old and requested that FIG. 3 be designated “Prior Art.” Without conceding the correctness of the objection, FIG. 3 has been amended to include the label “Prior Art.” It should be noted that various aspects of the claimed subject matter may be implemented using the framework illustrated in FIG. 3, and in that sense, FIG. 3 also describes subject matter that is not prior art. As such, the Applicant respectfully requests that the Examiner withdraw the objection.

CLAIM REJECTIONS UNDER 35 U.S.C. § 101

Claims 1, 3, 5-7, 11, 12, 14, and 20-31 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner contends that the claims are directed to non-statutory subject matter because the claims recite software steps that do not produce a useful, tangible, and concrete result. Contrary to the Examiner’s assertion, the amended claims recite computing and electronically storing prediction results formatted in a new and useful way, in addition to electronically communicating the prediction results to an application system. As described in the Specification, the prediction results facilitate interactions between call-center agents and customers. (Spec. at [0013].) Thus, the claims produce a useful, tangible, and

concrete result. As such, the claims are directed to statutory subject matter and Applicant respectfully requests that the Examiner withdraw the rejection.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

Claims 1, 3, 5-7, 11, 12, 14, and 20-31 stand rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner argues that the term “application system” is insufficiently defined. As amended, the claims recite “an application system comprising one or more software applications that run in a computing environment.” The Applicant submits that, as amended, “application system” is adequately defined. As such, Applicant respectfully requests the Examiner withdraw the rejection.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 3, 5-7, 11, 12, 14, and 20-31 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 20020083061 to Tamayo et al. (“Tamayo”). Claims 1, 3, 5-7, 11, 12, 14 and 20-31 also stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 20040034558 to Eskandari (“Eskandari”). Claims 1, 14, 21, 22, and 27 are independent. Applicant’s distinguishing of these references should not be considered to be an admission that these references are properly considered prior art.

Applicant’s amended claims are patentable over the cited references because the references, either alone or in combination, do not disclose or suggest all elements of Applicant’s claims. The cited references fail to teach or render obvious using prior prediction results to generate new, more accurate prediction results during an interactive session with a user. Specifically, neither Tamayo nor Eskandari, alone or in combination, disclose or suggest “using stored state information to select a second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result,” as recited in the independent claims. Although Tamayo discusses that “applying a data

mining model to data results in . . . predictions with an associated probability,” Tamayo is silent regarding “using stored state information to select a second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result.” Similarly, Eskandari mentions that “a subset of customer information is analyzed to determine a customer churn management model that can be applied . . . to calculate a likelihood-to-churn.” However, Eskandari, like Tamayo, is silent regarding “using stored state information to select a second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result.”

Applicant’s claims are directed toward providing prediction results to an application system in a customer relationship management (CRM) environment. For example, the application system provides a first set of input values to a prediction engine that, in turn, uses a data mining model to compute a first prediction result. (Spec. at [0011].) The prediction engine also stores state information created during the computation of the first prediction result. (Id.) Subsequently, the application system provides a second input value set to the prediction engine. (Id.) The prediction engine, in cooperation with the data mining model, computes a second prediction result using the first and second input value sets and the stored state information. (Id.) The claimed subject matter can expedite prediction tasks and generate prediction results of increasingly higher quality by reusing previously computed results. (Spec. at [0006].)

Unlike the subject matter of Applicant’s claims, Tamayo discusses an enterprise web mining system and method. (Title.) Tamayo mentions collecting data from a plurality of data sources, integrating the data, generating data mining models, and generating recommendations or predictions. ([0007].) Specifically, Tamayo notes that in certain contexts “a two-stage process is probably desirable . . . First a customer profile is recovered by assigning . . . a demographic and a browsing behavior . . . Then the recommendation is computed.” ([235].) Regarding computing recommendations, Tamayo mentions “applying a data mining model to data results in . . . predictions with an associated probability.” ([127].) However, the “two-stage process” discussed by Tamayo does not disclose or suggest “using stored state information to select a

second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result,” as recited in the independent claims. Nowhere does Tamayo discuss storing state information, much less using stored state information to select a second decision tree node or compute a second prediction result.

Like Tamayo, Eskandari fails to teach or fairly suggest storing state information and computing a second prediction result using stored state information, a second decision tree node, and a second input value. Esankdari relates to managing customer loss using a graphical user interface. (Title.) Eskandari mentions that “a subset of customer information is analyzed to determine a customer churn management model that can be applied to the customer information to calculate a likelihood-to-churn for each customer.” ([0039].) Eskandari also notes that the “customer churn model . . . may be in the form of a decision tree.” ([0049].) Yet, Eskandari makes no mention of “using stored state information to select a second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result.” Creating a management model and applying the model to customer information does not explicitly require nor suggest “using stored state information to select a decision tree node” or “using . . . the stored state information . . . to compute a second prediction result,” as recited in the independent claims.

Accordingly, both Tamayo and Eskandari fail to disclose or suggest “using stored state information to select a second decision tree node” or “using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result,” as recited in the independent claims.

For at least the foregoing reasons, the cited references, taken alone or in combination, do not disclose or suggest all of the limitations of Applicant’s amended independent claims. As such, amended independent claims 1, 14, 21, 22, and 27 are patentable over the cited references, as are dependent claims 3, 5-7, 11-12, 20, 23-26, and 28-31, which depend directly or indirectly from one of the independent claims. Accordingly, Applicant requests that outstanding rejections under 35 U.S.C. § 102(e) be withdrawn.

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CONCLUSION

Applicant submits that claims 1, 3, 5-7, 11, 12, 14, and 20-31 are in condition for allowance, and requests that the Examiner issue a notice of allowance.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please charge Deposit Account No. 06-1050 in the total amount of \$120.00 for the extension of time fee.

Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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